Mountaire Farms

Monday, February 12, 2018 10:09 AM

Inform the differences between 2003 and now

Description of what happened and historical challenges of Delaware
Companies response

Mike Porkowskie - partner consultant -environmental law

What participated this is a catastrophic failure in the treatment system
30 to 45 days of discharge that was minimally treated
Self reported
Interim actions were taken by mountaire

Focus of potential was on nitrates - nitrate contamination is everywhere in inland bays
Study after study shows the impacts

Map of nitrates concentrations in sussex county
Broad scale. Millsboro area
1976 through 1977 study
Robertson, F.N, 1979.

Dates sampling information was taken was prior to mountaire
Total nitrogen values but conversion factor
Switched to spray irrigation in 1978
1984 entre discharge went to spray irrigation fields.

Mountaire took over in 2000
Agree the 11 homes we targeted were impacted by spray irrigation in 2003 Order

35 exceedances out of 88
Gathering information on well depth
Looking at septic systems and cesspools - groundwater high---- mountaire claims

2010 DNREC flow 2010 study shows groundwater flow toward the river and not toward the sampled homes

Mark Eisner - consultant hydrologist
Found so far based on Sept 2017 groundwater flow map that current flow is similar to the 2010 map
Flow is south eastward not toward the southwest neighborhood

Opinion see
Hypothesis of septic to well connection
Looked at soil porosities, hydraulic conductivity, flow directions
100-150 feet from the upset

Sept 2017 - groundwater quality data from many monitor wells that mountaire owns... opinion doesn't contour into any spatial bullseye fashion - no plume to contour

Mountaire provided water to residences... said they would provide deep wells... also considering providing a public water supply system

Working with DNREC on interim measures
Mike Torrel
Biological Treatment Plant
Discovered upset and took immediate action - increased buffer by turning of end guns - do not spray in wet weather
Twice a month effluent sampling - now daily

2 8 1/2 million gallon lagoons asphalt lined
Go into an oxidation area
Then into clarifiers
Then to finishing pond

Solids build up in lagoons
Immediately began to add oxygen in to oxidations area

Add an liquid oxygen injection system
Physical removal of solids into anaerobic lagoons since September

Have a dewatering barge in finished pond to collect solids
Using a belt press to press the solids and send to land fill

Challenge where to find oil and grease
Temporary storage lagoon for the sludge
Considering to put wet sludge there in socks to dry and then send to landfill
Sending daily results to DNREC - 400 mg/L down to 125 mg/L currently nitrogen
Come up with an idea to super chlorinate the water - the latest with chlorination breakpoint is coming out as 33 mg/L nitrogen

Going to create a pond to create suction to minimize

End of next week break point should be dialed in and get better numbers than 33 mg/L

July 31st 2017 permit included 15 mg/L

Prior to the this permit lb/acre
Gallons times concentration to determine compliance with previous permit

Meet with DNREC once a month and sending daily sampling
Strongly deny any correlation between spray irrigation and the well contamination

21 people have interest in deeper wells
Some of these are not even included in the 88 homes

Brought on professional waste treatment operators to help... hired 4 of companies own and 2 new professionals
Had to discharge some employees that let it get to this point

Spray on weekends to catch up without spraying during wet weather

Hired outside consultant to design and install a new wastewater treatment plant
Design should be ready by may

There is a post anaerobic daft that will be between the two lagoons and the new tank will have a scraper to remove the solids... scrape it off and remove it... will be more constant

DNRECs enforcement has an offset
And the interest is supplying the water as an offset to the enforcement of treatment system

Tidewater has a well on route 5 and may be able to extend down to this area

Prior to new permit -
Concentration is now based on flow

New permit - other calculations to get credit for nitrogen